

Instructions For
KENMORE

**ELECTRIC
ROTARY
SEWING
MACHINE**



Circa 1954 A.D.

For the Lifetime of every Kenmore

Sears Guarantees
an Efficient Repair
and Parts Service

Take advantage of this service for
your convenience and satisfaction.

You can obtain this service thru any
Sears' Store, Retail or Mail Order.

Important: Be sure to state model
number of machine. Tilt head and
look for name plate attached to
front of bed plate flange (immedi-
ately beneath bed plate).

SEARS, ROEBUCK AND CO.

The Object of This Book

—is to provide you with complete directions for operating this sewing machine. We are extremely anxious that your investment in this machine returns the utmost in satisfactory service. Therefore you are urged to read this book carefully and thoroughly in order to familiarize yourself with the operation of this sewing machine, even though you may be accustomed to using some other make.

To Install Sewing Machine Head On Cabinet

Place the head on top of open cabinet and slide head hinge lug holes (Fig. 2) over round shanks of the two hinges attached to back of cut-out in top of cabinet. Tip head back and tighten head hinge set screws (Fig. 2) securely.

Pull bushing up on motor cord as near to the motor as possible and slip motor cord into slot at edge of bed plate and push bushing back into hole in bed plate (see Fig. 29). Unwind the extension cord inside the cabinet, plug into any base plug outlet, and the machine is ready for operation.

If machine is treadle operated, merely place leather belt around hand wheel drive pulley as of course there is no motor or electrical connections.

IMPORTANT

GIVE PARTICULAR ATTENTION TO IMPORTANT INFORMATION ON PAGES 11 AND 12.

Oiling

A sewing machine, like every other piece of machinery needs oiling to insure easy running and to prevent unnecessary wear of the parts which bear upon each other.

Oil holes are provided in the arm of the machine for parts which cannot be directly reached.

Depending on how frequently the machine is used determines the oiling requirements. Moderate use requires only an occasional drop of oil at the points indicated on the illustrations shown.

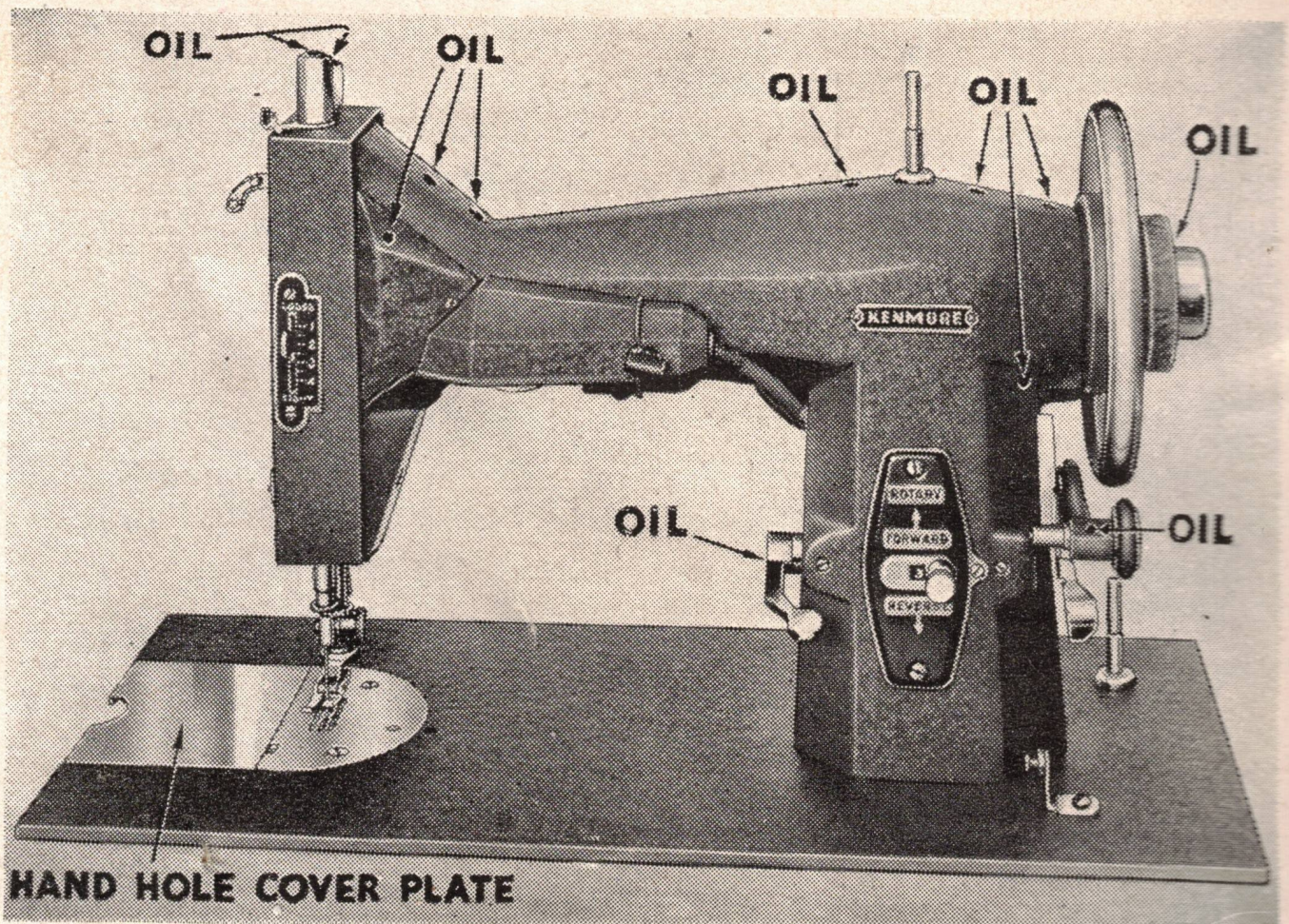


Figure 1

To oil the works underneath the bedplate, turn the head back and apply oil to points as shown in Figure 2.

On automatic lift machines the thumb screw on the bedplate near the base of the arm must be taken out before the head can be turned back.

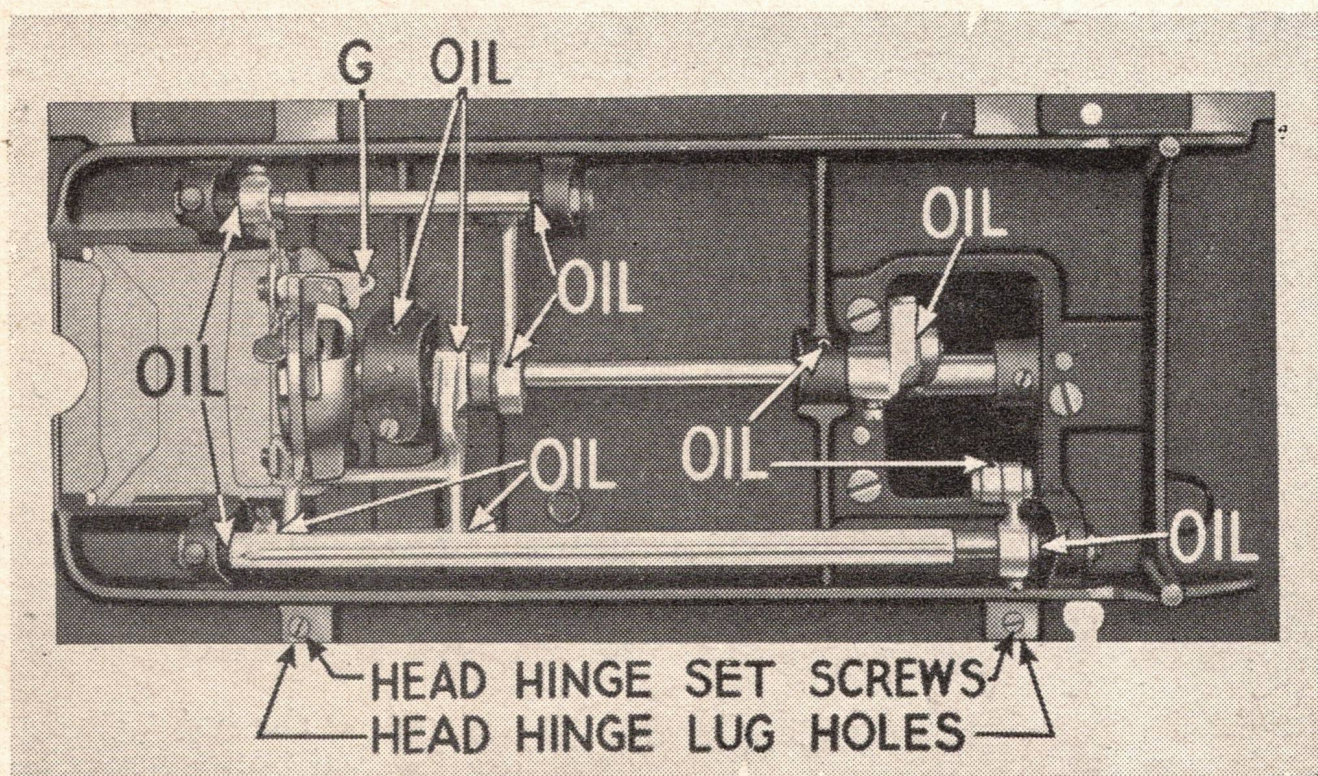


Figure 2

Cleaning Machine

IF THE MACHINE RUNS HARD it is due to lack of proper oiling of some bearings. Should the machine become gummed from long standing or poor oil, apply kerosene to all the bearings to remove the gum; then run the machine rapidly, wipe clean and OIL THOROUGHLY WITH GOOD SEWING MACHINE OIL before beginning to sew.

Occasionally place one drop of oil on tip of finger and apply around outer rim of shuttle, race, and center pin (C.P.) fig. 6.

Be sure to use ONLY Kenmore Sewing Machine oil.

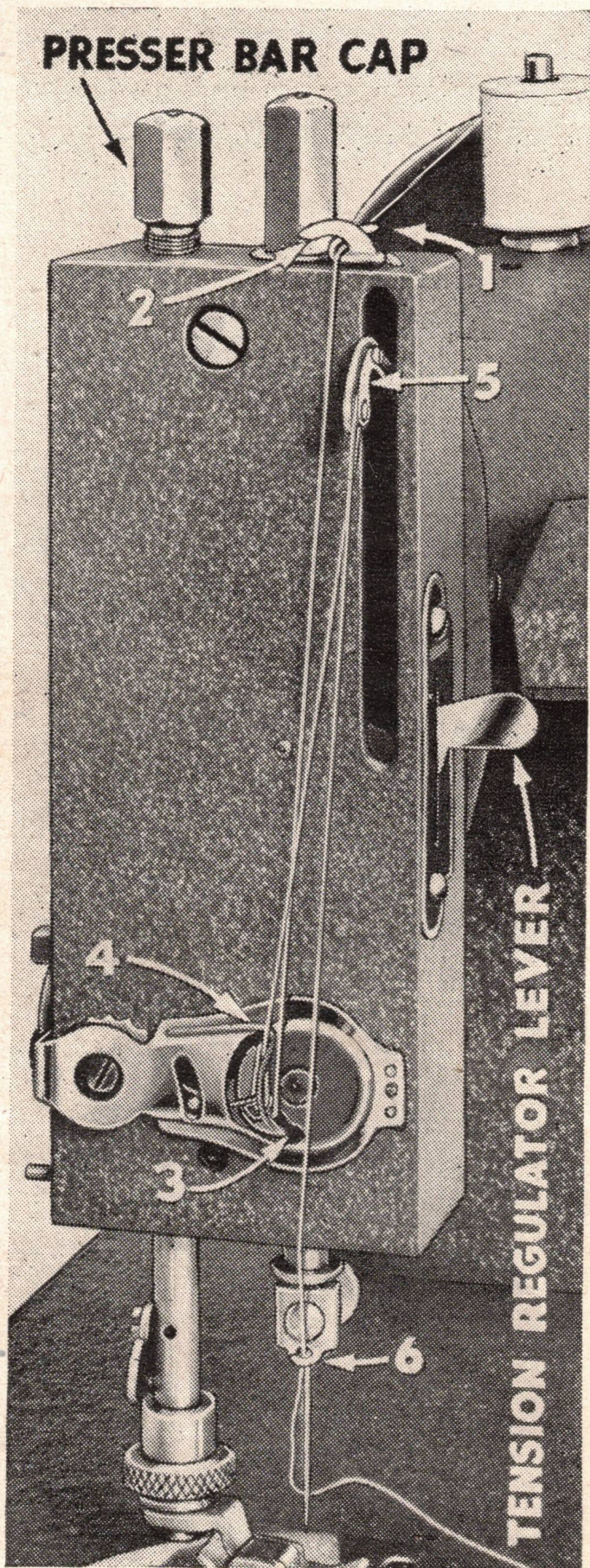


Figure 3

Threading The Machine, Upper Thread

(See Fig. 3)

Your machine should be in proper position for threading by turning the hand wheel, (the top of the wheel turns from you) so that the take-up (5, Fig. 3) is at its highest point.

Place a spool of thread on the spool pin on top of the arm. Hold the end of the thread in the left hand between the first finger and thumb, then use the right hand (first finger and thumb) to act as a tension on the thread.

Next, the thread should pass under and in front of hook one (1), then under and in back of hook two (2).

Next, downward and hook under point No. 3 from front to back.

Next, pull the thread upward until it hooks into spring eyelet No. 4.

Next, continue upward, hook thread (upward motion) into clip spring 5 on take-up.

Next, downward and hook thread into needle clamp thread guide 6 from back to front.

Next, into the eye of needle from left to right as you face the machine.

To Wind a Bobbin

(See figure 5)

Place the bobbin on bobbin winder spindle as shown. Hold the hand wheel with the left hand and turn the top of the clutch nut towards you. This will release the sewing mechanism of the machine. Next, place a spool of thread on the spool pin located on bed of machine directly below the hand wheel. Next, take the end of the thread and pass it under hook "A" on bobbin winder thread guide, and pull thread upward into eye of guide, then run end of thread through hole "B" in bobbin.

Engage the bobbin-winder pulley with the hand wheel by pushing lever "C" downward. Hold end of thread until you have run machine sufficiently to wind the thread around the bobbin several times; then break thread off at hole "B" and continue to run machine and bobbin winder will automatically throw off when proper amount of thread is wound.

After the bobbin is wound and removed; tighten the clutch nut by turning the top of it from you while holding the hand wheel with your left hand.

On **non-electric machines** proceed in the same manner, except that the power for operation is furnished by the foot treadle.

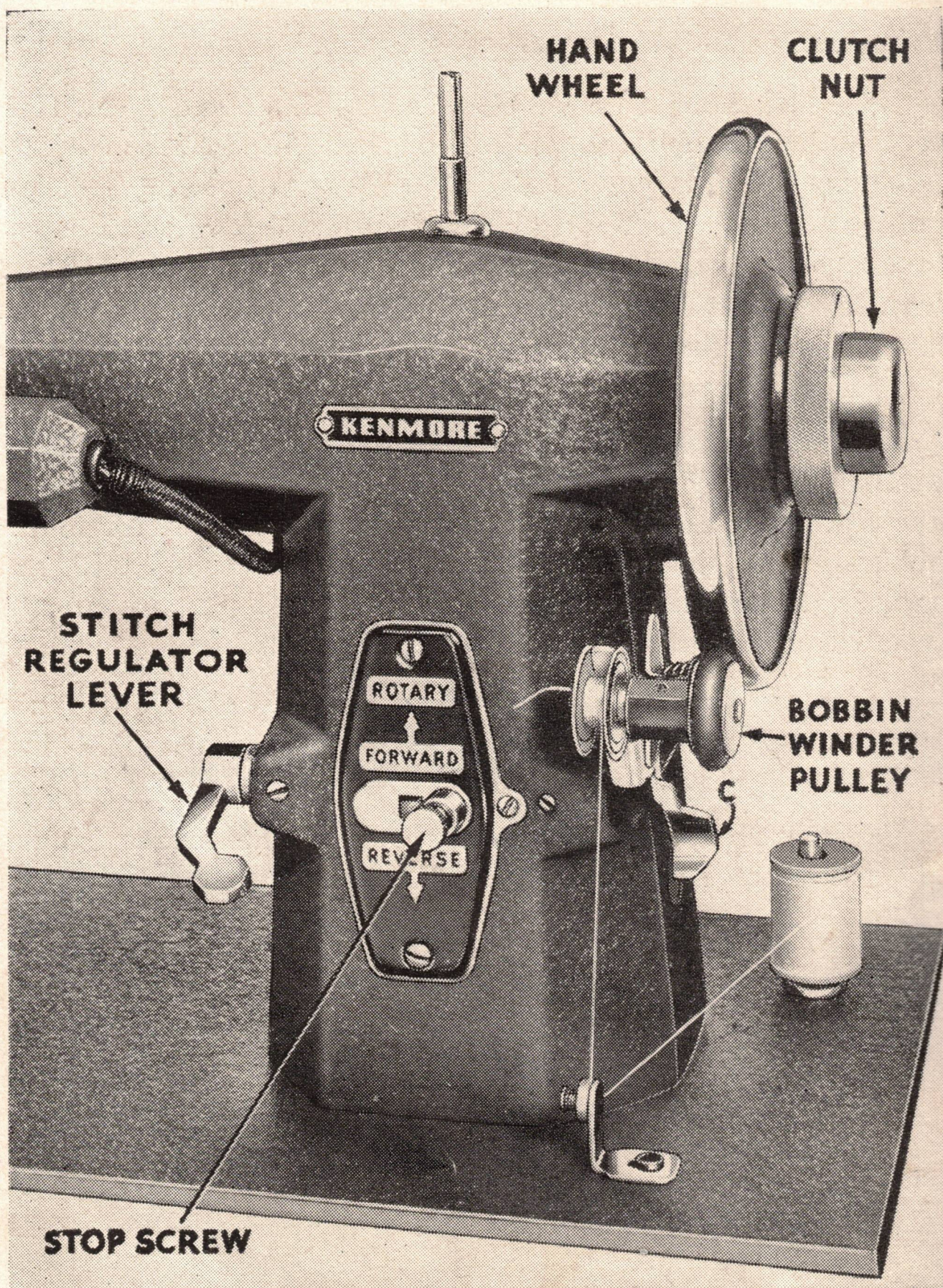


Figure 5

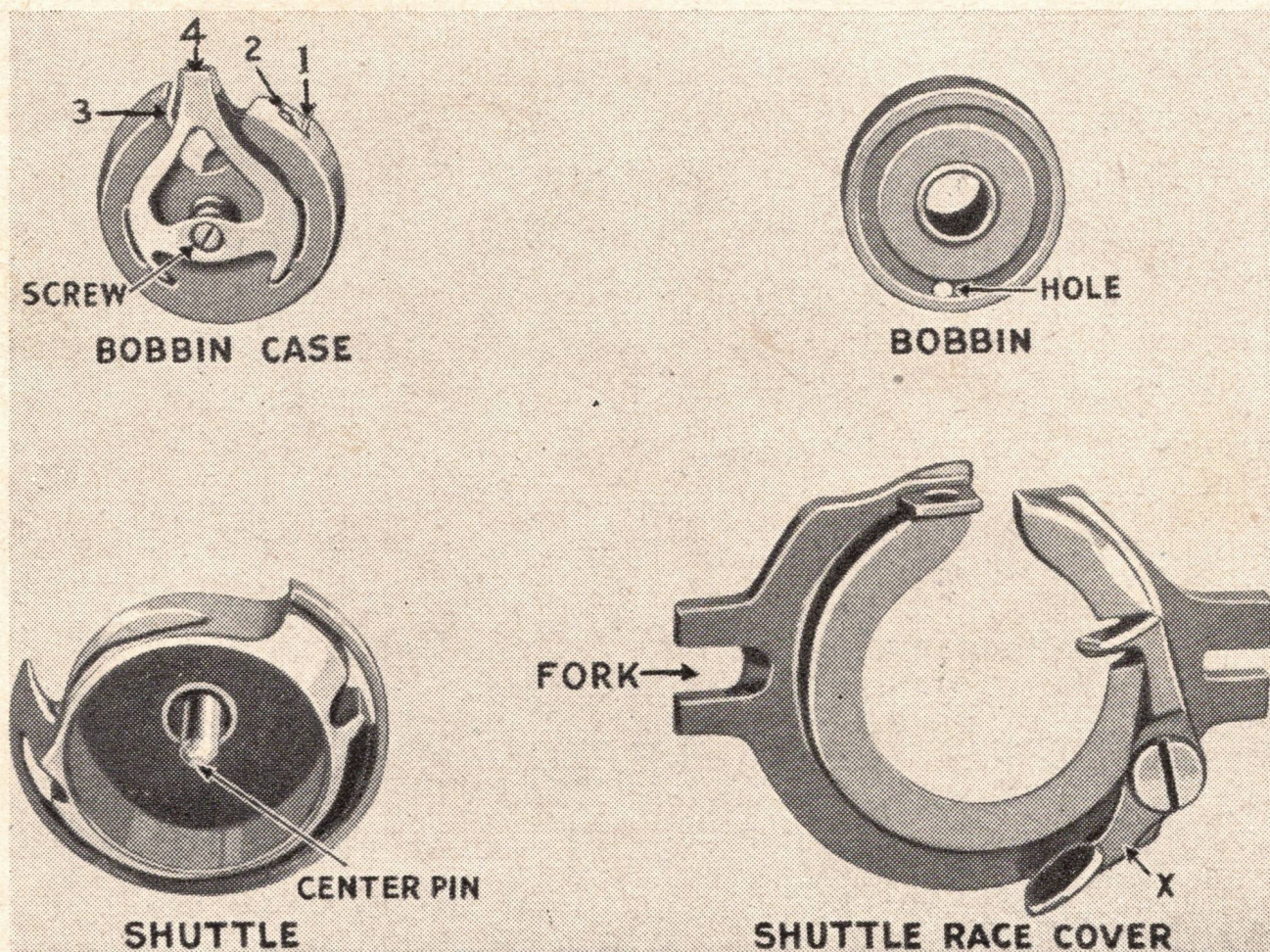


Figure 6

Threading the Bobbin Case

Hold bobbin case with thumb and first finger of left hand, with tension tongue (4) upright. Then place filled bobbin in case, starting thread into slot (1). Continue pulling thread up to end of slot (2); then across to bottom of slot (3) and upward until thread comes out at top of tension tongue (4). Leave about two inches of thread projecting.

Caution—Read the instructions on the small envelope included in the box of accessories that contains the bobbin case—threaded as it should be. Note carefully the way the bobbin case is threaded before removing bobbin or unthreading.

To Draw Up Lower Thread

While holding loosely in the left hand, the end of the thread extending through eye of needle (three or four inches), turn the top of hand wheel from you (clockwise) with the right hand, until the needle goes all the way down and comes back up. The lower thread will form a loop over the thread you are holding and come up through the needle hole. Lead the ends of both threads back under the presser foot, keeping the upper thread in presser foot slot.

To Remove the Bobbin Case from Shuttle

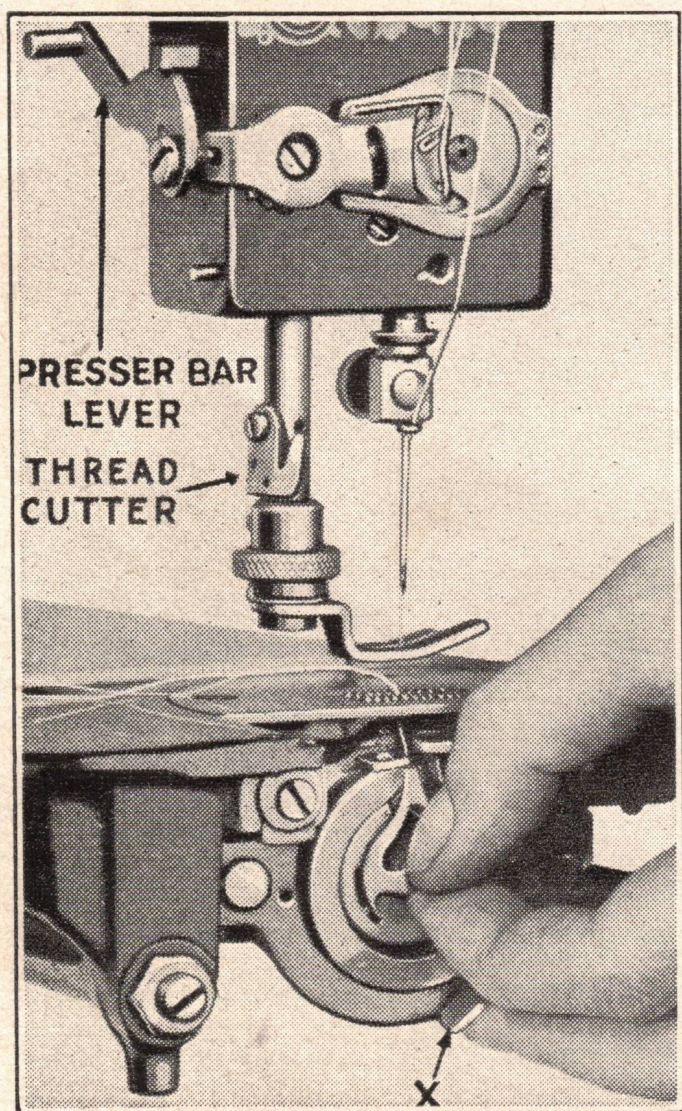


Figure 7

Turn hand wheel (clockwise) until take-up (5, Fig. 3) is at its highest point. Then remove the hand hole cover plate permitting you to reach down to bobbin.

Clasp the bobbin case with the thumb and first finger of your left hand as shown in Fig. 7. Then with the second finger lift up on latch "X" and the bobbin case can be readily removed.

Follow the same procedure in replacing the bobbin case in shuttle.

The hole in the center spindle inside the bobbin case fits over the center pin of the shuttle, as shown in Fig. 6.

To Remove Shuttle from the Shuttle Race

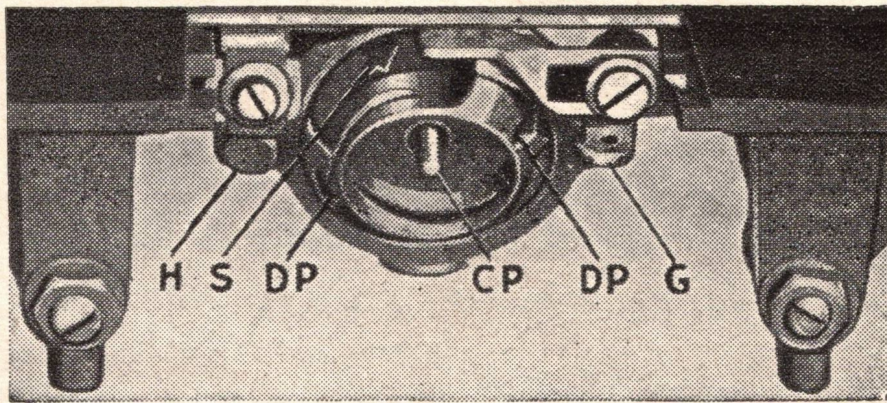


Figure 8

First remove the hand hole cover plate and tip head back on its hinges. *Next*, remove bobbin case as already explained. *Next*, turn the hand wheel (clockwise) until the point of the needle is just entering needle plate hole. Then press rear end of latch G, shown in Fig. 8. This will release the shuttle race cover (Fig. 6) so it may be readily removed from under pin H. *Next*, take hold of the center pin in shuttle (CP, Fig. 8) and it can be readily removed **WITHOUT FORCE**.

To Replace the Shuttle

Turn the hand wheel until the point of the needle is just entering the needle plate hole. With the thumb and first finger of the left hand, hold the shuttle by the center pin (CP, Fig. 8) so the centers of the slotted holes directly opposite each other in the outer edge of the shuttle, are exactly in line with the driving pins (DP). When properly lined up, the **SHARP** point of shuttle will be almost directly over the tail of the arrow (S). It is imperative that the shuttle be properly placed in the race, and it must never be **FORCED** into position. When the shuttle is in position replace shuttle race cover by slipping the fork at left side under pin (H) and push right side back over latch (G) which will snap back to its holding position.

Regulating the Tensions

Upper:

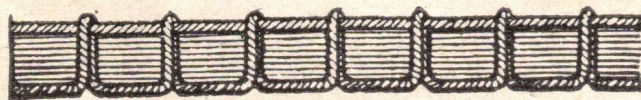
When the presser foot lifter lever (Fig. 3) is raised, tension on the upper thread is automatically released. Therefore, the presser foot must always be lowered when adjusting the upper tension. The tension regulator lever is located on the face of machine. (Fig. 3). To *increase* tension push lever *downward*. To *decrease* tension push lever *upward*. The most satisfactory tension for ordinary sewing is obtained with pointer on this lever set between figures 2 and 3 on the numbered gauge.

Lower:

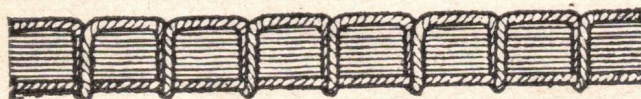
The small screw in center of the bobbin case (Fig. 6) regulates the tension on the lower thread. To *increase* tension tighten the screw; to *decrease* tension, loosen it. In either event only turn this screw a little bit at a time.

Tension should be in balance to get best results—neat, flexible, accurate stitching. Experiment until your stitching is balanced as follows:

If the upper thread is too tight, the upper thread will be drawn straight on the top of the material, thus:



If the lower thread is too tight, the lower thread will be drawn straight on the bottom of the material, thus:



When tensions are properly adjusted the stitching on materials will look the same on both sides, thus:



To Regulate Stitch Length

(Forward and Backward With Stops)

The stitch regulator lever (Fig. 5, page 6) controls the stitch length for both forward and reverse.

The positioning of the stop screw (Fig. 5, page 6) regulates the length of the stitch, forward and reverse, by limiting the movement up and down of the stitch regulator lever.

To Set the Stitch Length:

Move the stitch regulator lever until the desired number appears in the window then turn the stop screw to the right until it comes to rest.

As long as the stop screw is not turned the length of stitch will remain the same.

To sew in reverse, move the lever down until it stops.

To sew forward, move the lever up again until it stops.

If the lever and stop have been set for a short stitch length such as No. 2, and the operator wishes to use a longer stitch, loosen the stop screw and set the stitch regulator to the desired longer stitch as shown in the window in the plate then tighten the stop screw as before until it comes to rest. The same longer stitch will now result both forward and reverse, except that number 4 is the longest reverse stitch length.

To Remove the Work

The take-up (5, Fig. 3) *must* be at its HIGHEST POINT before attempting to remove the work. Failure to do this will result in breaking the thread and unthreading the needle.

Turn the hand wheel until the take up (5, Fig. 3) is at its highest point, raise the presser foot with presser foot lever and **DRAW THE FABRIC BACK** about three inches in a straight line, pass both threads over the thread cutter on the presser bar. After the material has been removed and the threads cut, do not run the machine accidentally or otherwise without material under the presser foot. (See following paragraph.)

IMPORTANT—When the machine is threaded, do not operate it without having material under the presser foot.

Failure to observe this instruction will cause thread to lodge in the shuttle mechanism and prevent machine from

running properly. To correct, take out bobbin case and run the machine in the wrong direction, turning wheel by hand, and it will cut thread out; or better still remove shuttle and clean the race and driving pins.

To Avoid Breaking Needles

Never pull the work, causing needle to strike the needle plate. A needle may also be broken by sewing heavy seams or very thick goods without sufficient pressure on the presser foot for such heavy work. To increase this pressure, turn the thumb screw on top of the presser bar.

To Set the Needle

The needle bar should be raised to its highest point. Loosen the thumb screw of the needle clamp and press it to the left. This will permit the shank of the needle to pass up between the clamp and the needle bar as far as it will go with the flat side of the shank to the right. Then fasten the needle clamp screw securely. Use a screw driver.

The needle when descending should pass in the center of the needle plate hole from front to rear, but close to right side of needle hole. If it does not the needle is either bent or improperly set.

Proper Needles and Thread

It is important to use perfect needles that are not bent nor blunted. When ordering needles for this machine mention the name and give the head number. For ordinary family sewing, use needle size No. 1. This will carry thread No. 60 to No. 90.

Following table will show the size of needles to be used with various sizes of thread:

Cotton Thread	Silk Thread	No. of Needle
150 to 300	000	00
90 to 150	00	0
60 to 90	0 & A	1
40 to 60	B	2
30 to 40	C	3
20 to 30	D	4

The Narrow Hemmer

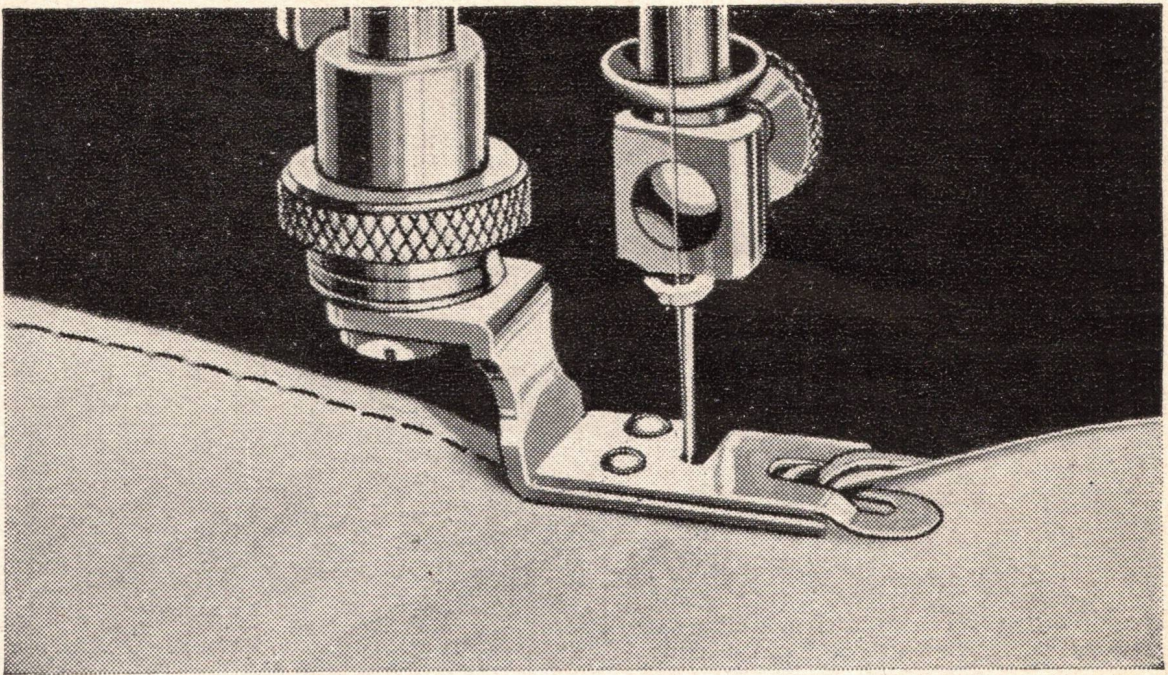


Figure 9

Nothing has ever equaled the dainty finishing that it is possible to obtain by the use of the Narrow Hemmer.

This attachment is put on the Sewing Machine in place of the presser foot and is designed to turn and stitch a narrow hem in one operation.

Before inserting material in Hemmer crease over $\frac{1}{8}$ inch of its edge for a distance of about 2 inches, insert edge in Hemmer guiding it around the scroll, folded edge on top, draw fabric back until edge is under needle; lower presser bar and begin to stitch. Should stitching appear too far from turned edge of hem, push Hemmer slightly toward the right; should stitching appear too close to edge, or not catching at all, move hemmer slightly toward the left.

Guide material so that neither too much feeds into the scroll, causing wide and uneven hems; neither too little, not allowing for a second turning, thus leaving a raw edge. The scroll should be kept just full.

Hemming and Sewing on Lace in One Operation With the Foot Hemmer

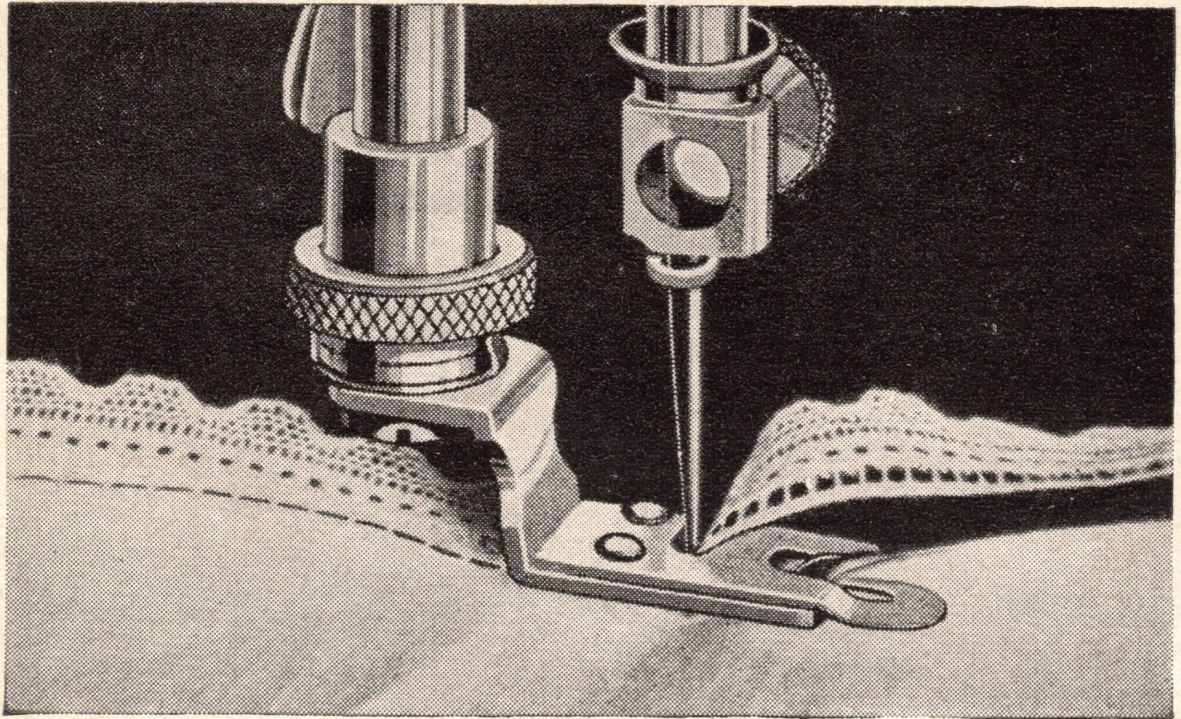


Figure 10

The Narrow Hemmer is designed with a slot at the right into which the edge of lace, rick-rack braid or any finished edge can be inserted and stitched to garment while it is being hemmed.

Proceed to make a hem in the same manner described on previous page. Insert edge of lace or trimming right side down in slot at right of hemmer and see that the needle pierces it close to the edge just above turned edge of hem. Commence to stitch guiding the lace edge into the slot of hemmer with the right hand while guiding material to be hemmed into the scroll of Hemmer with the left hand.

Applying lace in what is termed the French manner also requires the use of the Narrow Hemmer. Enter the fabric to be hemmed as for plain hemming, enter laces from the left, right side down, on top of the fabric; allow edge of lace to enter Hemmer and meet material just as it is being turned, thus the hem will enclose lace edge in one stitching. Press hem back on wrong side of fabric and no visible stitching will mar this dainty finish.

A Felled Seam with Foot Hemmer

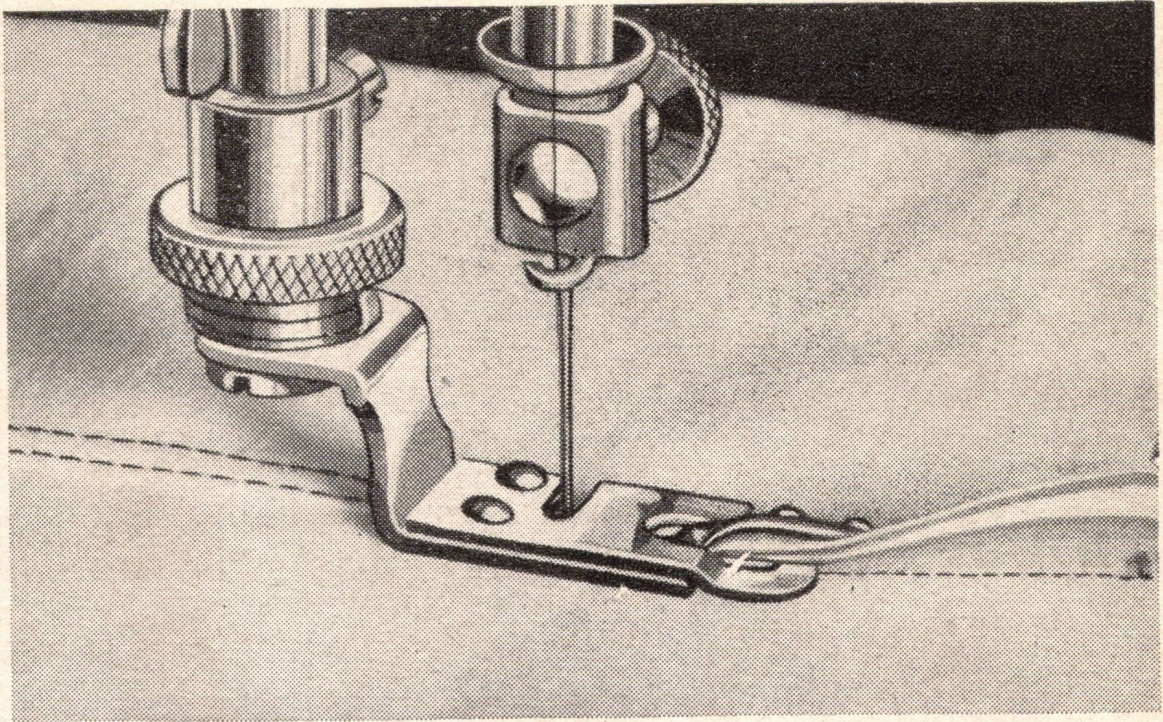


Figure 11

A felled seam is generally used where double strength is desired with a nice flat finish.

When using the foot hemmer for felling the labor is cut in half.

Place the two pieces of material to be seamed together with right sides facing, allow one section to extend about $\frac{1}{8}$ inch beyond the other. Place goods under the Foot Hemmer just as though it were the presser foot, keeping narrow side of seam uppermost; stitch, using the edge of Foot Hemmer as a guide for seams edge. After stitching is completed open seams and place under foot hemmer with right side of material down flat on bed of machine and the widest half of seam toward the right. This widest portion of seams edge is then entered in scroll of hemmer (See Fig. 11) and if seam has been evenly stitched the $\frac{1}{8}$ inch or widest half of seam will enclose and cover the $\frac{1}{8}$ inch edge in a neat felled seam.

Wide Hemmers

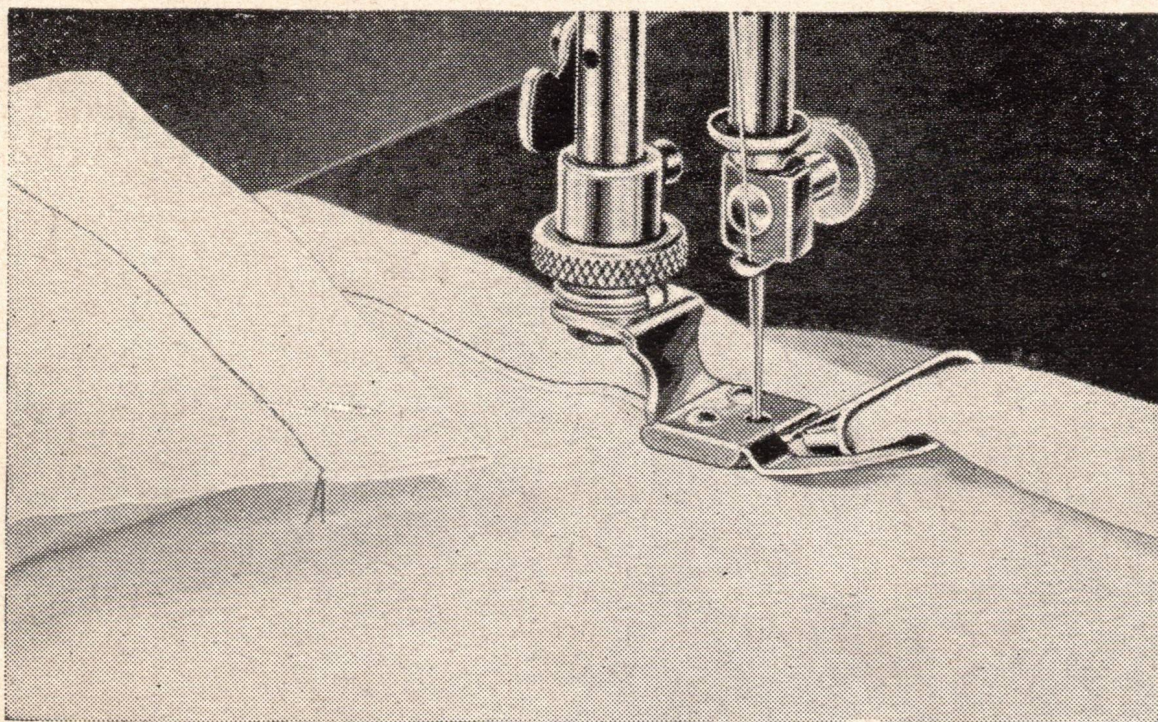


Figure 12

An assortment of wide hemmers is furnished with your Sewing Machine.

Attach the desired size of Hemmer to machine in place of the presser foot; crease over $\frac{1}{4}$ inch of material to be hemmed for about two inches before inserting edge of goods. Enter material and guide it around scroll of hemmer using both hands to draw it back and forth a few times, while gradually feeding the cloth into the hemmer so as to fill the scroll completely. Draw material back so that creased edge fits around edge of scroll in hemmer and selvedge edges meet. Hold both under and upper threads and proceed to stitch.

Should the stitching appear too far from turned edge of hem loosen thumb screw and move hemmer toward the right. If it appears dangerously close to turned edge of hem move hemmer toward the left.

As material is stitched through the large hemmers the turn at edge of hem is visible. Allow the hem to ride freely through the hemmer, never drawing on the edge being turned, but gently retarding the material under the hemmer, using the left hand.

Cutting Gauge

The cutting gauge is used as a guide when cutting bias bands for use as binding; or narrow bands either straight or bias to be used as facings, pipings, cording or narrow ruffling.

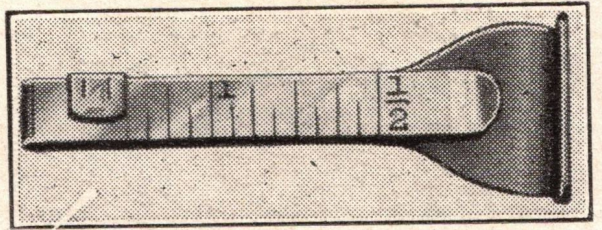


Figure 14

The inch and fractions thereof designated on the cutting gauge enables one to cut material of any texture perfectly for use with the binder.

$\frac{7}{8}$ -inch or $\frac{15}{16}$ -inch is correct for firmly woven materials.

1-inch to $1\frac{1}{4}$ -inch is correct for materials that stretch more readily. The gauge slide is adjustable and can be moved to the left or right.

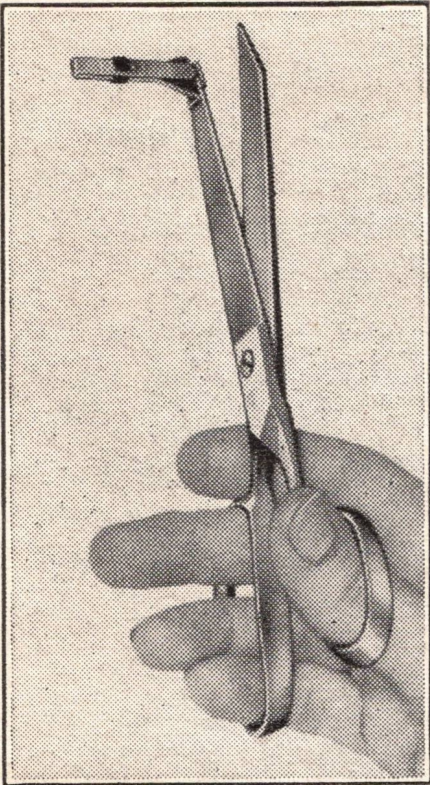


Figure 15

Attach cutting gauge to lower point of scissors, move gauge slide to width of band desired. Insert the material to be cut between the blades of the cutting gauge with the edge of material against the slide, then cut moving the scissors forward in short even clips.

It is important that bindings to be used with the binder be cut on a true bias to produce perfect work. Only a true bias will stretch evenly.

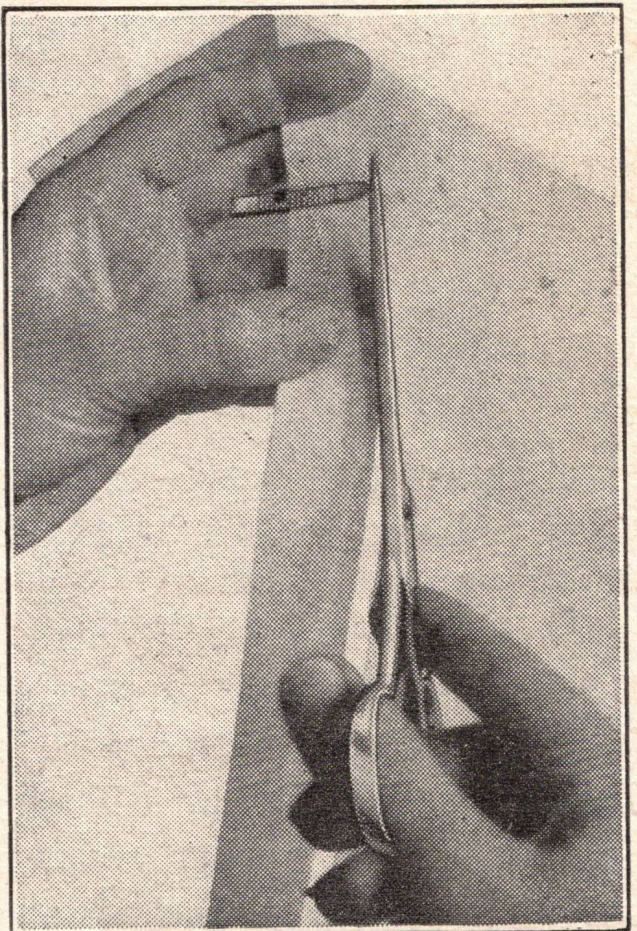


Figure 16

The Multiple Slot Binder

The popularity for bindings that do double duty never diminishes. Bindings are frequently used to finish the edges of fabric as well as furnishing a garment's only trimming.

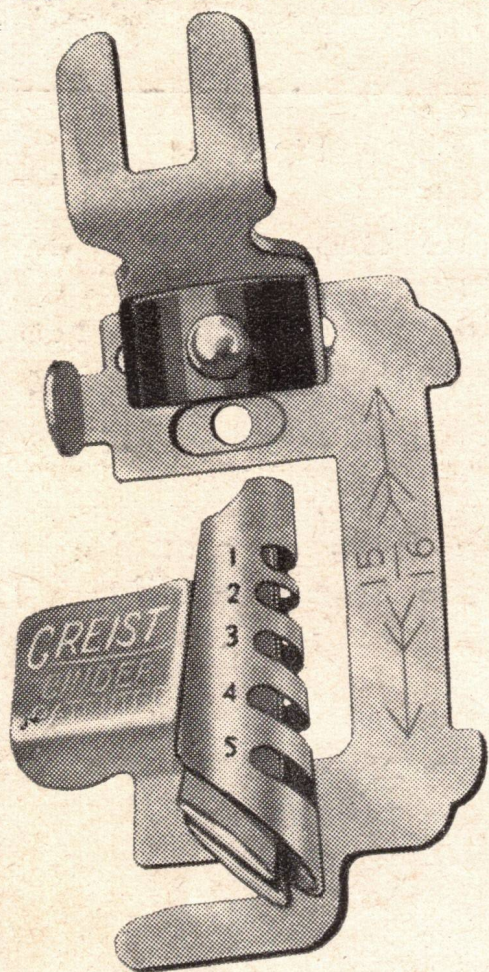


Figure 17

The Multiple Slot binder is designed to cover every binding need whether it be the actual making of dainty garments that call for narrow bindings or in the construction of so many household utilities.

The Multiple Slot Binder is made with 5 different sized slots, each designed to carry binding of their width. Size 1-2-3-4-5.

Commercial single fold binding must be used and fed into the slots of same size as illustrated.

The familiar $\frac{7}{8}$ inch or $1\frac{5}{8}$ inch bias cut binding which every woman has always used is entered through the open mouth of the scroll.

The Binder is adjustable side-wise to bring the stitching properly close to the edge of binding.

Exclusive Bindings with the Multiple Slot Binder

Remove the presser foot and attach Binder in its place.

As shown in Fig. 18 the Multiple Slot Binder can be used for attractive combination trimmings so much in vogue on jabots and frilled accessories.

Our illustration shows a tricolored trim using commercial single fold bindings sizes 1—3 and 5. Sizes 5 and 3 act as two tone pipings while size 1 binds the edge enclosing the fabric in the double piping all in one single stitching. This trimming is just as effective on the reverse side of fabric making it a desirable accomplishment for any dainty cascade.

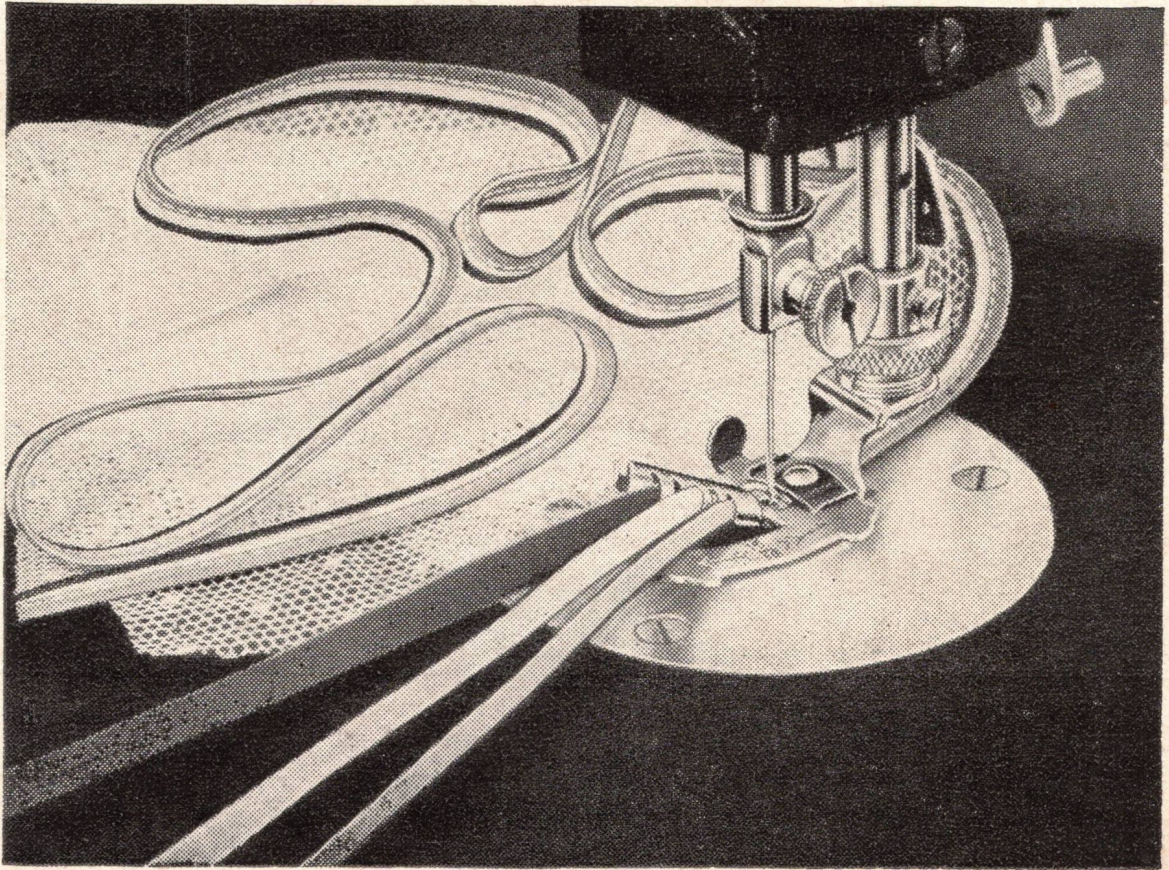


Figure 18

Clip bindings to a decided point and enter each width in its respective slot helping it beyond the needle with the aid of a large needle or pin and starting with the narrowest width. The edge to be bound is inserted in the center of the attachment between the scroll and held in as far as possible without crowding.

Many lovely double binding combinations are possible in several different sizes: 1 and 3; 2 and 4; or 3 and 5.

Binding with Bias Cut Binding

Binding that has been cut and prepared for Binder should be cut to a long point, inserted into the scrolls of Binder and helped forward beyond the needle by the aid of a large pin. Lower presser bar and stitch to ascertain where stitching line appears on binding.

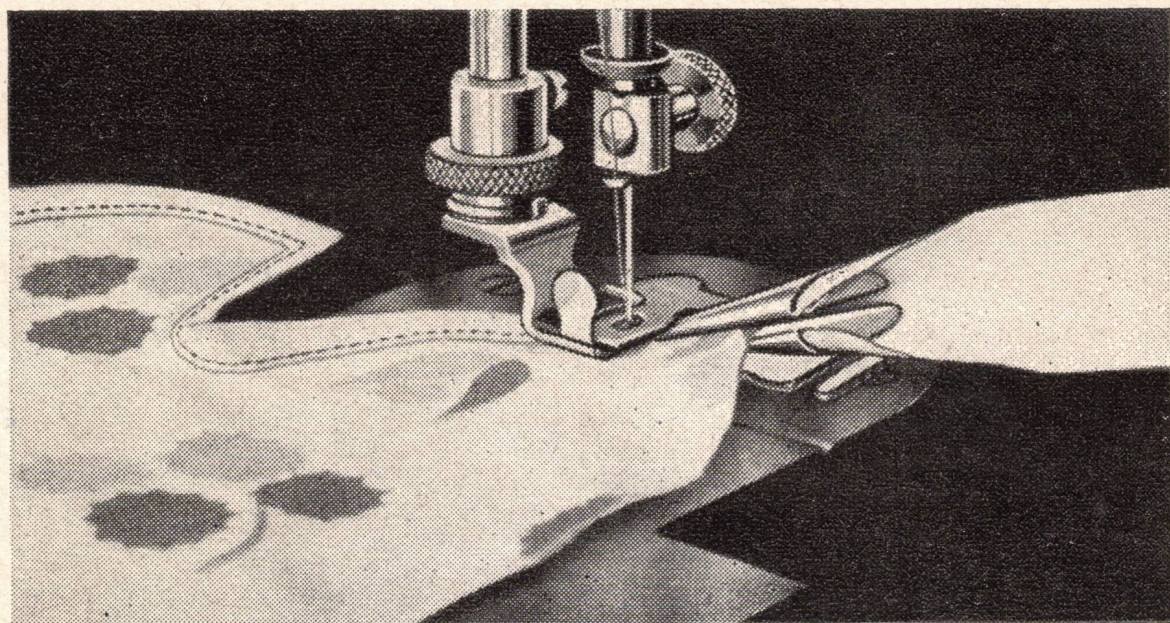


Figure 19

The Binder is adjustable and can be moved to left or right until line of stitching appears safely close to edge of binding.

In binding scallops it is necessary to hold the edge to be bound well into the fold between scroll of Binder as fabric nears the needle, at this point only is binding being stitched and if care is exercised no stretch will appear on this curved edge. Illustration of bound scallops (Fig. 19) clearly shows this operation.

Additional rows of binding can be applied as a trimming by placing garment to be trimmed under the Binder and guiding the spaces between rows by the edge of Binder Frame.

Quilting

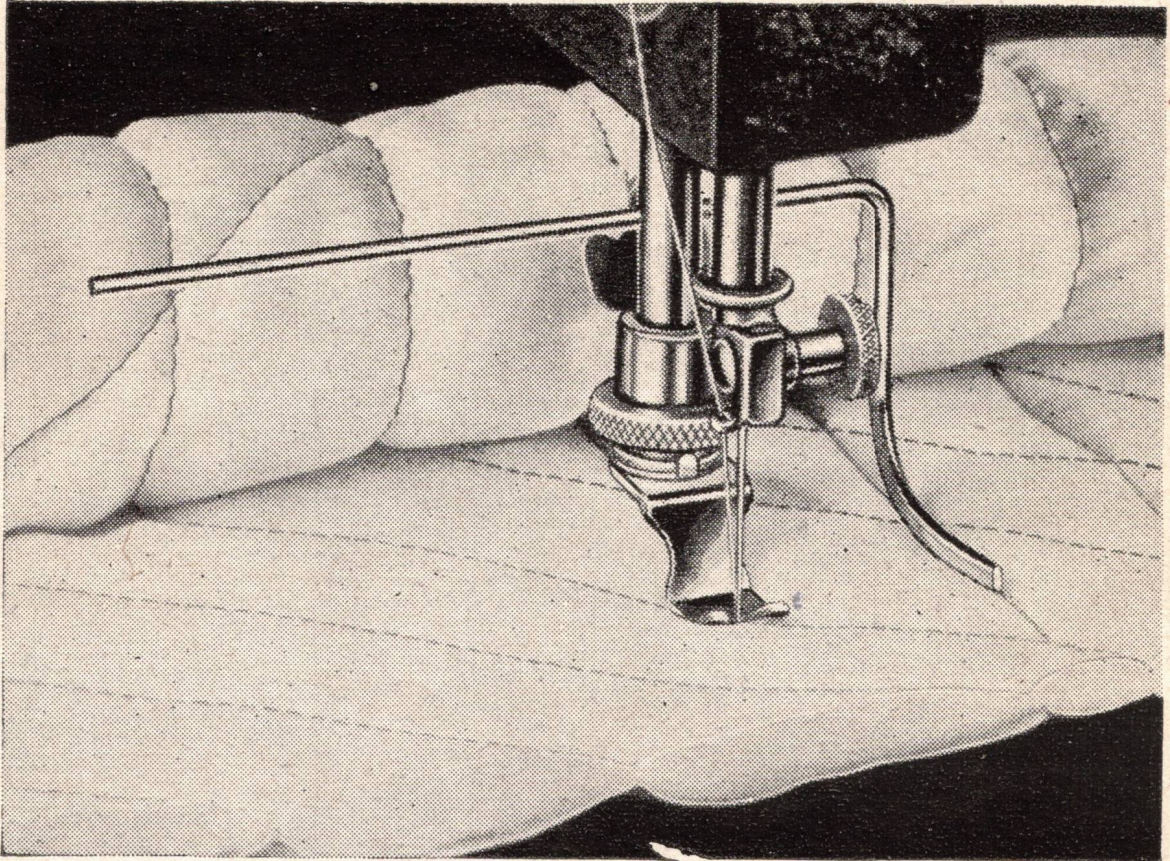


Figure 20

So much depends upon accuracy in stitching especially when successive rows are used for trimming. The quilter will act as an accurate guide for any stitching that is spaced wider apart than the presser foot allows.

For genuine quilting over wadding the Quilter Guide used with the Quilter Foot has no equal. Place as many thicknesses of wadding over the wrong side of quilt fabric as desired, place a piece of cheese cloth over the whole to insure the even pucker so desirable on comfortables or quilts.

Free the thread cutter screw at back of presser bar sufficiently to allow quilter wire to fit into the screw hole. Adjust Quilter Guide the distance from needle desired and high enough from bed of machine so that material can pass under it freely, then tighten screw.

Set the machine stitch fairly long and keep the wrong side of quilt uppermost.

For extremely thick padding release the pressure on the Quilter Foot by turning the Presser Bar Cap. (Fig. 3).

The Five Stitch Ruffler

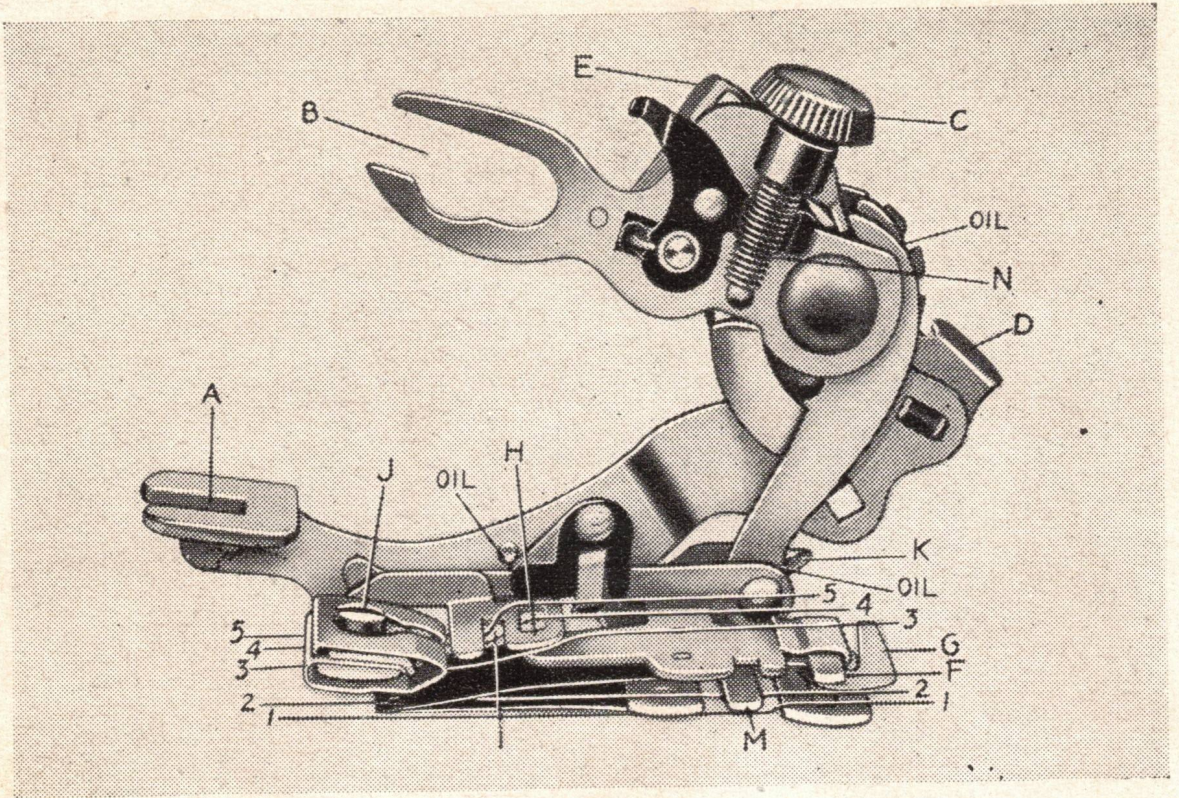


Figure 21

Letters in Figure No. 21 designate the parts of Ruffler.
Figures indicate the placement of materials.

- A—Foot which is attached to Presser Bar.
- B—Fork Arm. The section placed astride the needle clamp screw.
- C—Adjusting Screw. Used to regulate the fullness of pleats and gathers.
- D—Five Stitch Lever. Used for setting a five stitch pleat.
- E—Lever. Adjusts for pleats or gathers in groups by throwing Ruffler into neutral.
- F—Seam Guide.
- G—Sliding Guide. Used to vary size of headings.
- H—Piping Guide.
- I—Edge Guide. Used to determine a close edge stitch on material when ruffler is entered from the right.
- J—Screw. Used to set edge guide.
- K—Adjustable heading guide.
- M—Lip which separates seam guides.
- N—Blue spring over adjusting screw.

Line

- 1—Is under the ruffler and indicates the position for the garment or band to which ruffle is sewed giving a $\frac{1}{4}$ " seam.
- 2—Between the blue blades where the feed blade will gather or pleat material with a $\frac{1}{4}$ " seam.
- 3—The upper piece of material used when ruffle is sewed between two pieces of material.
- 4—Guide for piping strip.
- 5—For edgestitching material to ruffle that is entered from right.

Ruffles as a Trimming

Ruffles can be gathered or pleated by the use of the 5 Stitch Ruffler depending upon the type of trimming desired or the amount of fullness afforded.

Remove the presser foot and attach the Ruffler to machine by fitting foot "A" in position on the attachment holder and at the same time setting the ruffler fork arm "B" astride the needle clamp. Push ruffler forward and tighten attachment holder screw firmly.

Turn hand wheel and see that needle goes down in center of needle hole on ruffler.

The material to be gathered or pleated is entered between the two blue blades of the ruffler with its seams edge or heading in either of the slots designed for this purpose, seam guide "F" or sliding guide "G".

Place some scrap material between the blue blades of the ruffler and attempt to become acquainted with the simplicity of its settings.

Gathering

To obtain fine gathers, set stitch on machine between 1 and 2 and turn adjusting screw "C" on Ruffler upward. To obtain coarser gathering and more fullness lengthen stitch on machine and turn adjusting screw "C" downward until the desired fullness is obtained. With the adjusting screw down to its limit and the stitch of machine set long it is possible to obtain a pleat with every stitch forming a very lovely pleated ruching.

Pleating

To adjust the Ruffler for pleating pull adjusting lever "D" upward and toward you, keep adjusting screw "C" down as far as it will go; the Ruffler will now make a pleat after every fifth stitch. The space between pleats can be regulated by the length

of the machine stitch, the shorter the stitch the closer the pleats, the longer the stitch the greater the space between pleats.

Group Pleating

A very popular trimming and one that is very attractive is pleats set in groups.

With the Ruffler set for pleating as above described stitch a group of five pleats with stitch set at (2) now push adjustment "E" forward or from you and just a line of straight stitching will result. With lever "E" thus set stitch until last pleat made is in line with Ruffler foot or until desired space between pleated groups is obtained, then push adjustment "E" back again for the next group of pleats.

Apply Ruffle to Garment and Join Facing in One Operation

Place garment to which ruffle is to be applied under the Ruffler following line 1 with its edge over lip "M" and under seam guide. Place strip to be ruffled between blue blades following line 2 and in gauge "F". Place facing over the blades and under the foot following line 3 keeping edge of facing in line with Ruffler slide. Proceed to stitch, and ruffle will be gathered or pleated to the garment between its facing in one single stitching.

Joining Ruffle to Garment with Visible Edge Stitch and Piping

To accomplish the above the strip to be ruffled is $1\frac{1}{4}$ inches wide or less and is entered between the blue blades of the Ruffler from the right with edge of ruffle in guide "G". Edge of garment which has been turned back and creased is entered in edge guide "I" from the left following line 5.

If a piping is desired it is folded and cut $\frac{1}{4}$ inch wide and entered in piping guide "H" following line 4 with folded edge toward the right.

To apply a wider ruffle the shirring plate would be used with the Ruffler.

Shirring

It is possible to depend upon gathering an even amount of fullness into continuous rows of shirring when the Shirring Plate is used with the Ruffler.

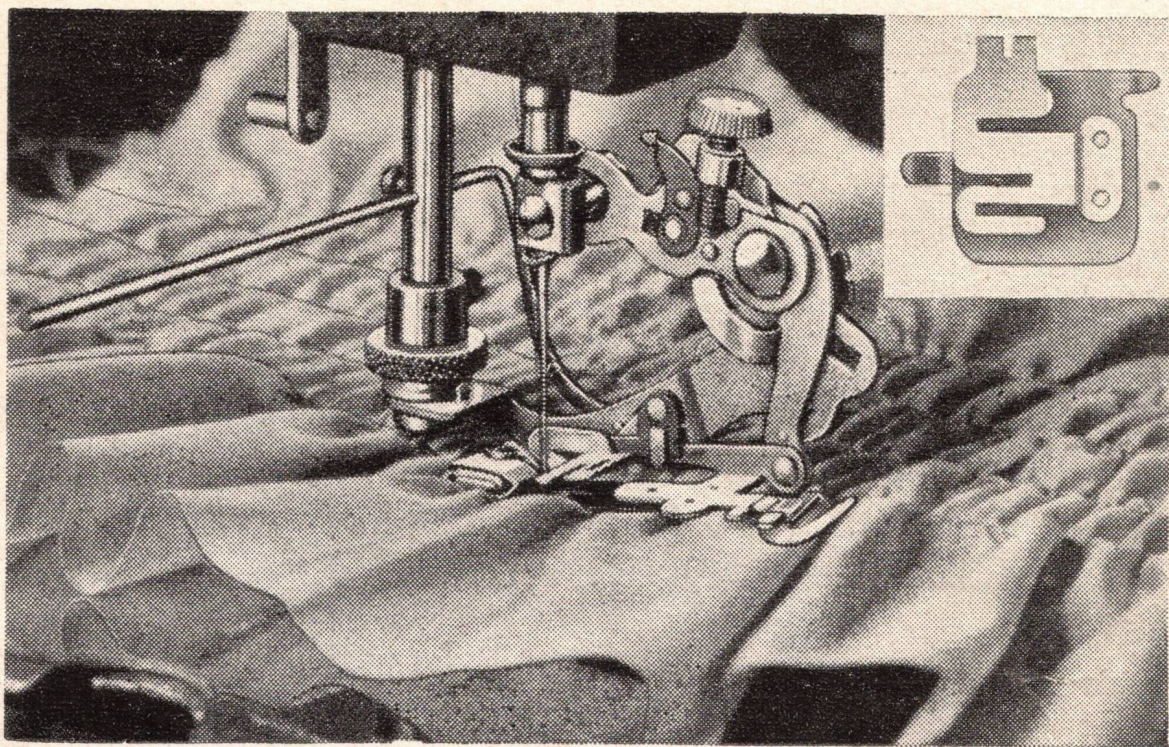


Figure 22

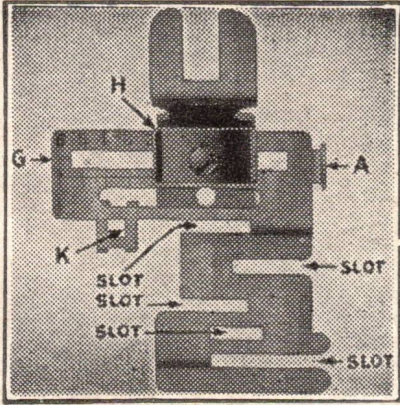
Remove the cover plate from machine and attach Shirring Plate to bed of machine by fitting the prong at right of Shirring Plate into the screw hole in needle plate of machine. The left side of Shirring Plate will fit over needle plate at left and it is then held firmly in place by fitting the cover plate over the ear on shirring plate and pressing it back into position on machine. The blade on this Shirring Plate replaces the separator on the Ruffler and is designed for shirring any width of material or for wide headings on ruffles.

Free the blue screw on right side of ruffler and remove the separator blade. Tighten screw again to prevent its loss. Now put the Ruffler on machine in place of the presser foot as previously explained for attaching Ruffler to machine. You will note that the feed blade of ruffler fits over blade of shirring plate just as it did over the separator on Ruffler. Place material to be shirred between shirring plate and feed blade of Ruffler. Set stitch on machine where desired. Short for fine gathers, longer for coarse gathering. Turn adjusting screw "C" for desired fullness, downward for full gathering, upward for finer gathering.

Guide material as it is being gathered keeping it smooth as fullness enters Ruffler.

To insure rows of shirring that are evenly spaced apart use the Quilter as a guide.

Combination Edge-Stitcher, Tucking Guide and Top-Braider



The Edge-Stitching Attachment is fastened to the machine in the same manner as the Presser-Foot. There are five different slots, which are shown in the illustration, serving as guides for sewing together laces, insertions, embroideries, sewing in position folded or hemmed edges, bias-folded material or piping, etc.

How to Adjust the Edge-Stitcher

To adjust, move the lug "A" to the right or left until the desired adjustment is obtained. When sewing two pieces of lace together, it is very necessary that the attachment is adjusted to stitch exactly on the edge, so that the edges will not fold over when laundered.

When sewing laces or soft materials together, it is better to hold the edges, slightly overlapped. This will prevent the lace from feeding away from guide.

When the attachment is properly adjusted, the most inexperienced operator may sew yards of lace or material together with no difficulty.

Tucking

The numbers 2 to 6 inclusive stamped on the back edge of the sliding guide represent the width of tuck in eighths of an inch. After folding the material for the first tuck, put the folded edge into the guide slot which is nearest the needle. When the left edge of the friction spring "H" coincides with the number 2 on the scale a $\frac{1}{4}$ " tuck results.

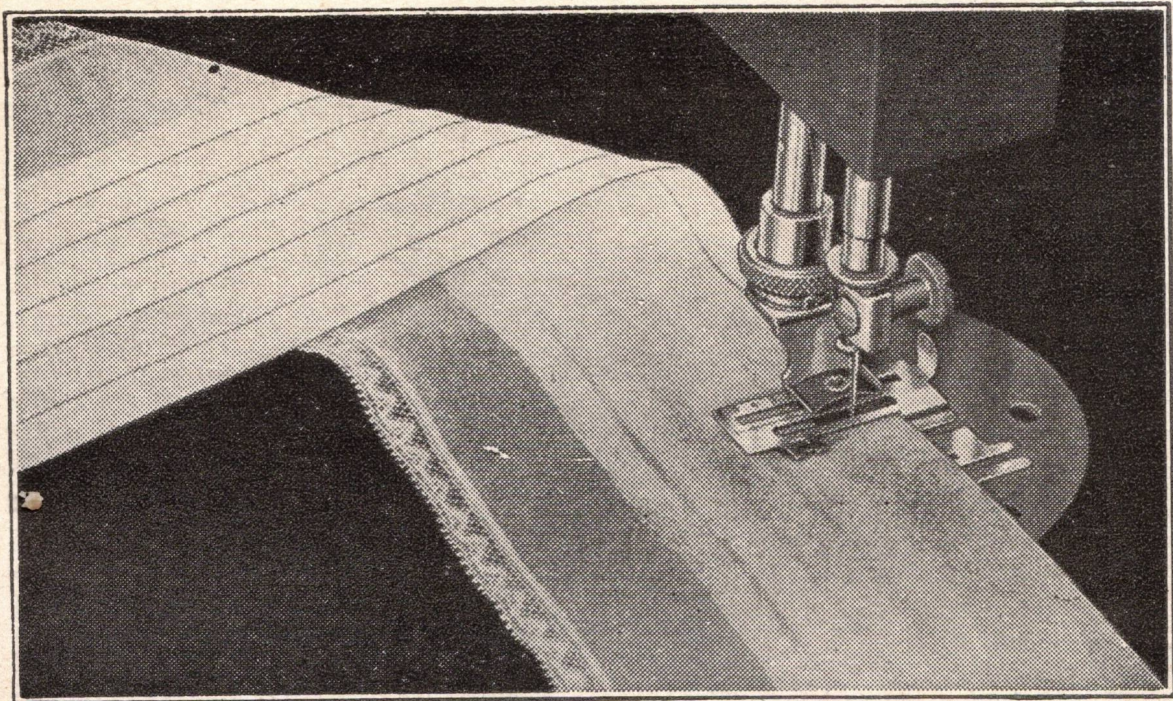
In like manner, set the guide at 3 for a $\frac{3}{8}$ " tuck.

In like manner, set the guide at 4 for a $\frac{1}{2}$ " tuck.

In like manner, set the guide at 5 for a $\frac{5}{8}$ " tuck.

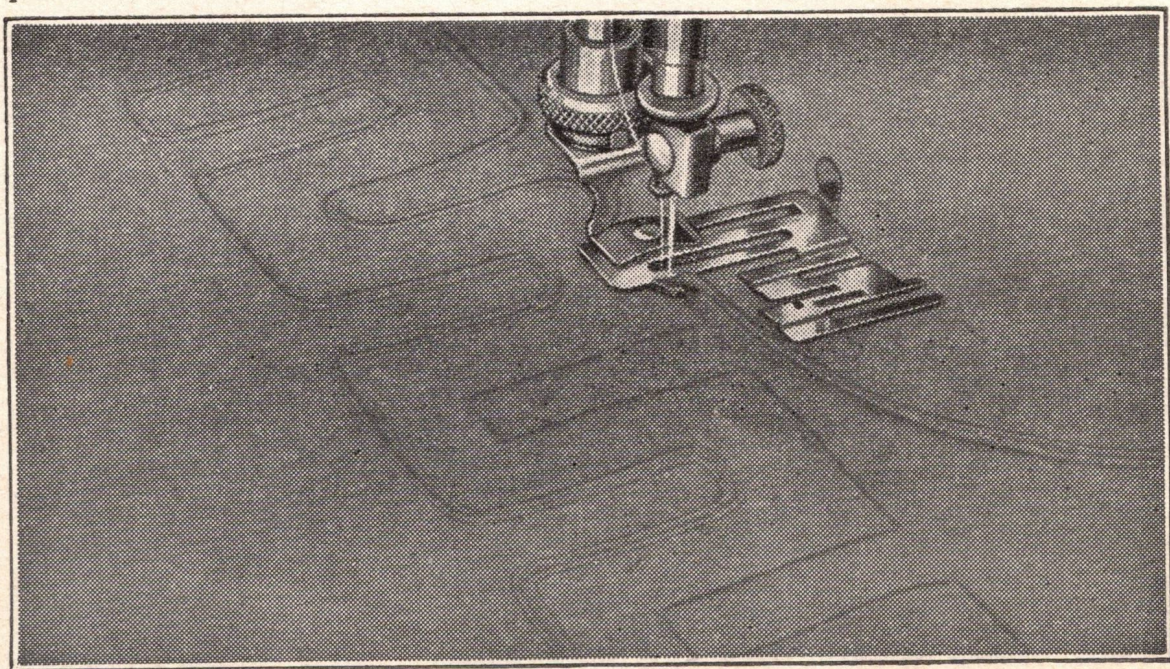
In like manner, set the guide at 6 for a $\frac{3}{4}$ " tuck.

For tucks narrower than $\frac{1}{4}$ " move the guide "G" as far as desired to the left.



Braiding

Move the guide "G" to the right until the braiding guide hole "K" is exactly in line with the needle hole of the attachment. The design to be braided should be plainly marked or stamped on the top or right side of the fabric. Start the soutache braid into hole "K" and stitch along design, being sure that the soutache braid is feeding freely into hole "K" without twisting. To turn a corner, stop the machine *with the needle down through the braid* in the exact corner of the design, raise the presser-bar just enough to permit the turning of the fabric in the desired direction, lower the presser-bar and proceed as before.



The Shirring Foot

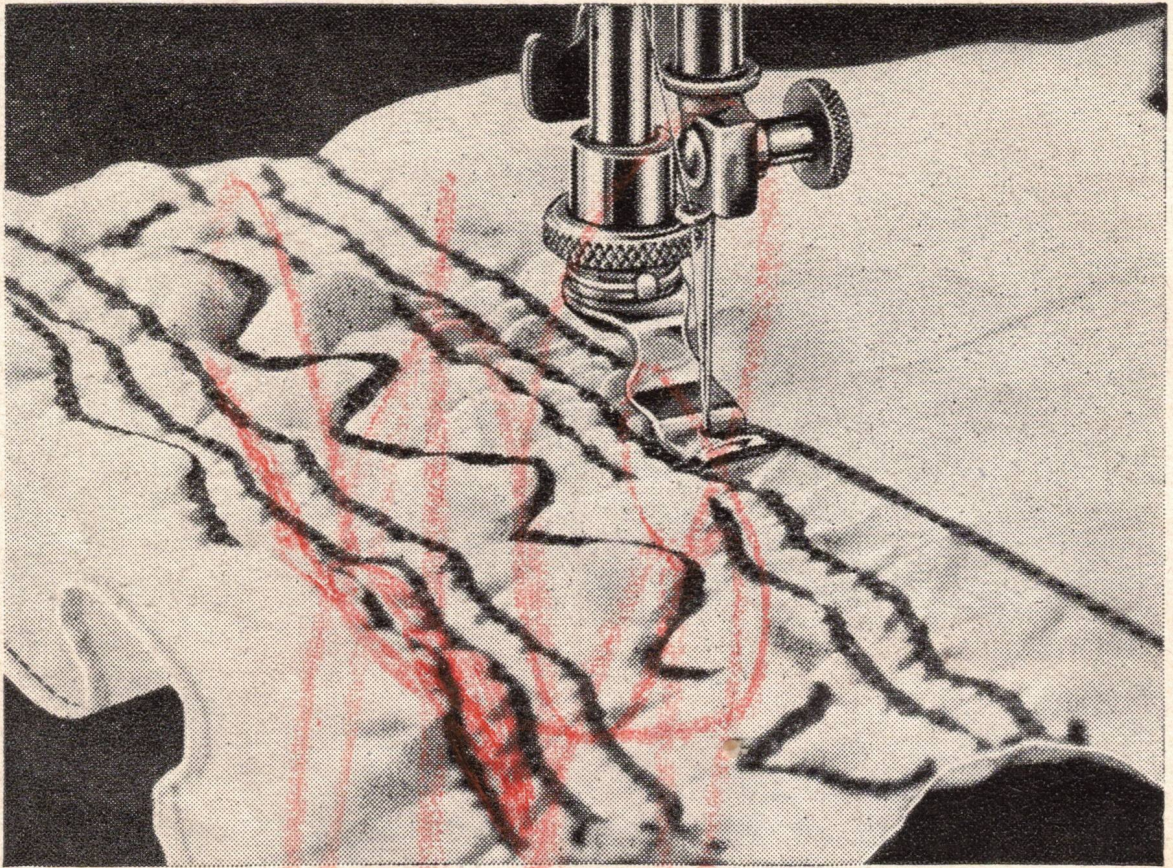


Figure 26

One of the very newest and well liked Sewing Machine trimmings is the dainty smocking obtained when using the Shirring Foot.

Fig. 26 shows rows of shirring held firmly by a row of DMC Floss entered through the needle hole of Shirring Foot and stitched to garment while it is being gathered. These continuous rows of shirring are broken by a diagonal shirring which produces a very attractive puffing for a smocked effect.

The Shirring Foot replaces the presser foot for this work and the amount of fullness obtainable is governed by the setting of machine stitch and tension. For fine shirring set the stitch short; to obtain greater fullness lengthen the stitch and tighten the upper tension.

Carefully guide fabric as it is being gathered so that material feeds to the needle singly.

Cording Feet

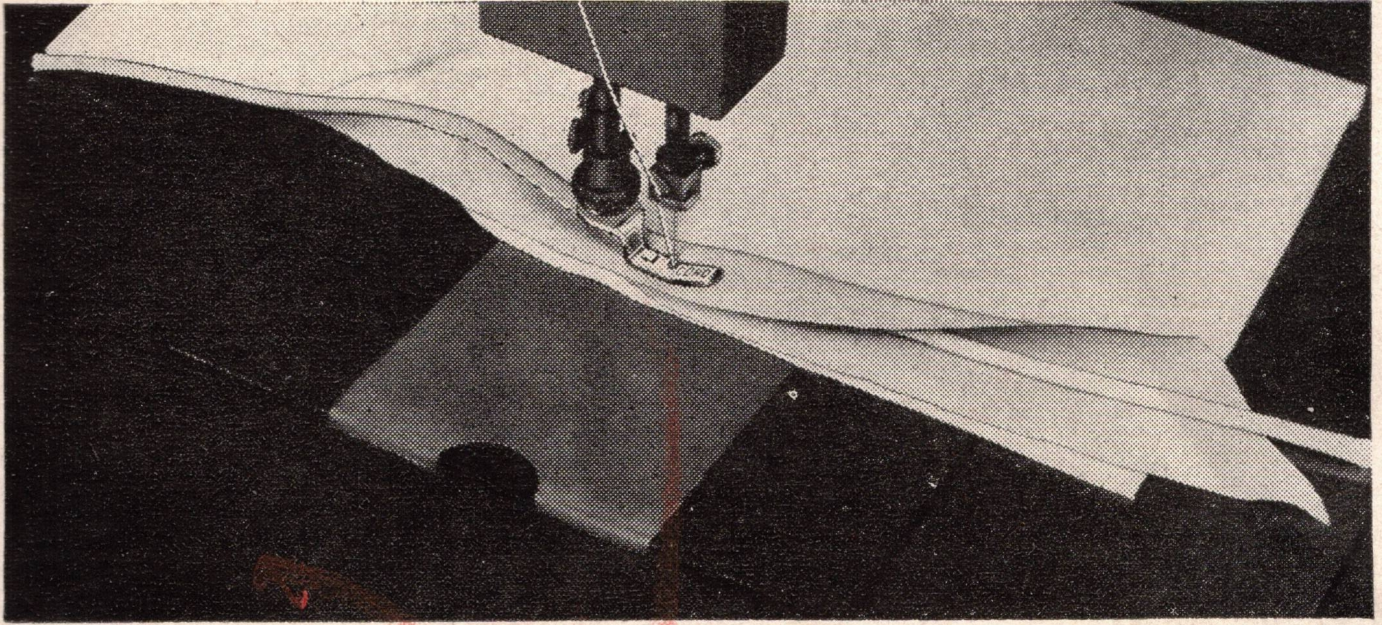


Figure 27

The left and right toe Cording Feet are designed to allow the needle to stitch close to a cord or raised surface. Use the left toe (L) when the cord is to the right of the needle and the right toe (R) when the cord is to the left.

Remove the presser foot and attach the desired Cording Foot in its place. Fold a strip of bias over the cord, right side out, and place under the Cording Foot. Stitch along close to the cord. Use a Cording Foot when placing covered cord in a seam or along an edge.

Fig. 27 shows a left toe Cording Foot being used to cover cord and join it to a fabric edge in one stitching.

When the fabric is extremely bulky, loosen the Presser Bar Adjusting Cap screw slightly (Fig. 3) to allow the fabric to feed more freely under the Cording Foot.

Zipper Attaching Feet

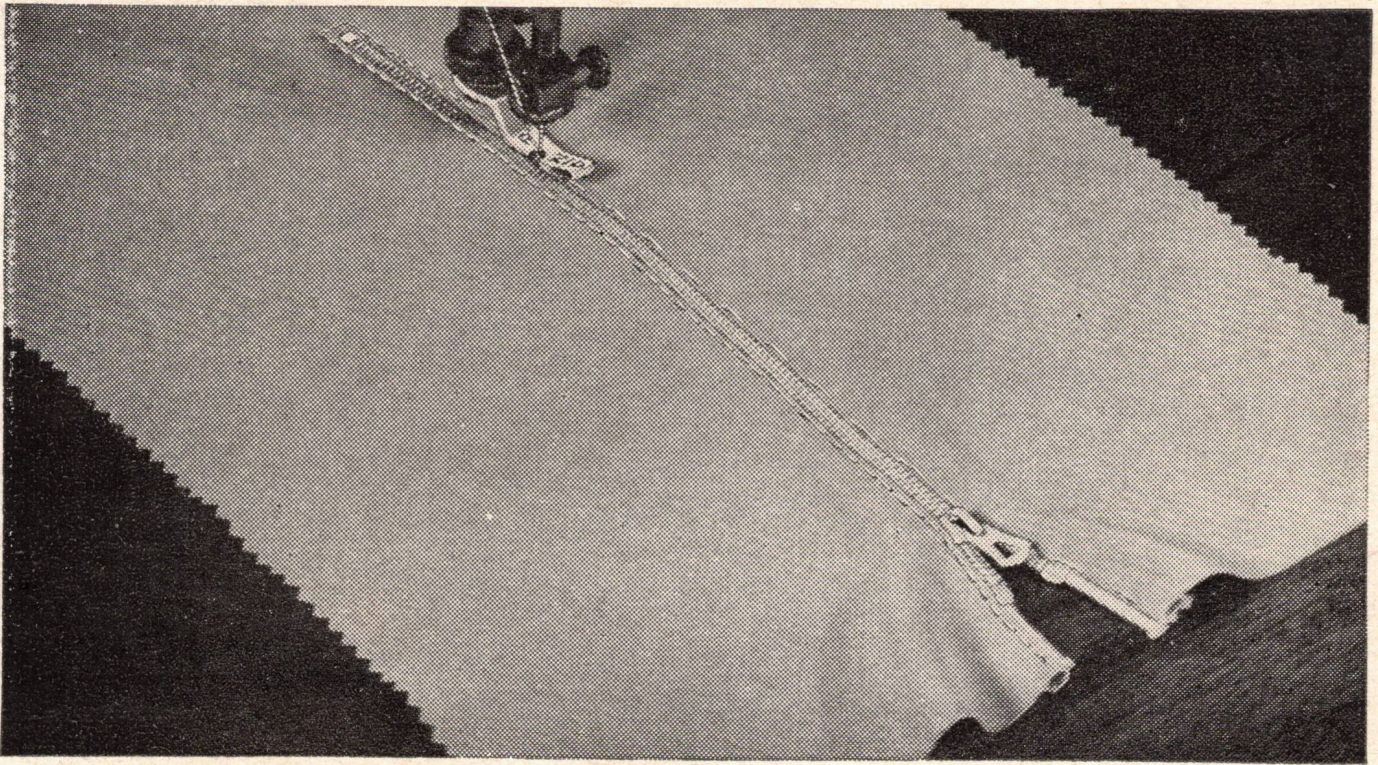


Figure 28

Zipper Attaching Feet are designed to allow the needle to stitch the proper distance from the metal of a slide fastener. The needle hole is cut a little deeper than on the Cording Feet to allow sufficient space between the metal and the line of stitching so the fabric will not catch in the slide pull as it is being opened and closed.

Fasten the desired Zipper Attaching Foot on the presser bar in place of the regular presser foot. Baste the slide fastener in the garment then machine stitch close to the metal slide.

Fig. 28 shows a right toe Zipper Attaching Foot being used to stitch a slide fastener in a garment.

To Install Sewing Machine Head On Cabinet

Place the head on top of open cabinet and slide head hinge lug holes (Fig. 2) over round shanks of the two hinges attached to back of cut-out in top of cabinet. Tip head back and tighten head hinge set screws (Fig. 2) securely.

Pull bushing up on motor cord as near to the motor as possible and slip motor cord into slot at edge of bed plate and push bushing back into hole in bed plate (see Fig. 29). Un-

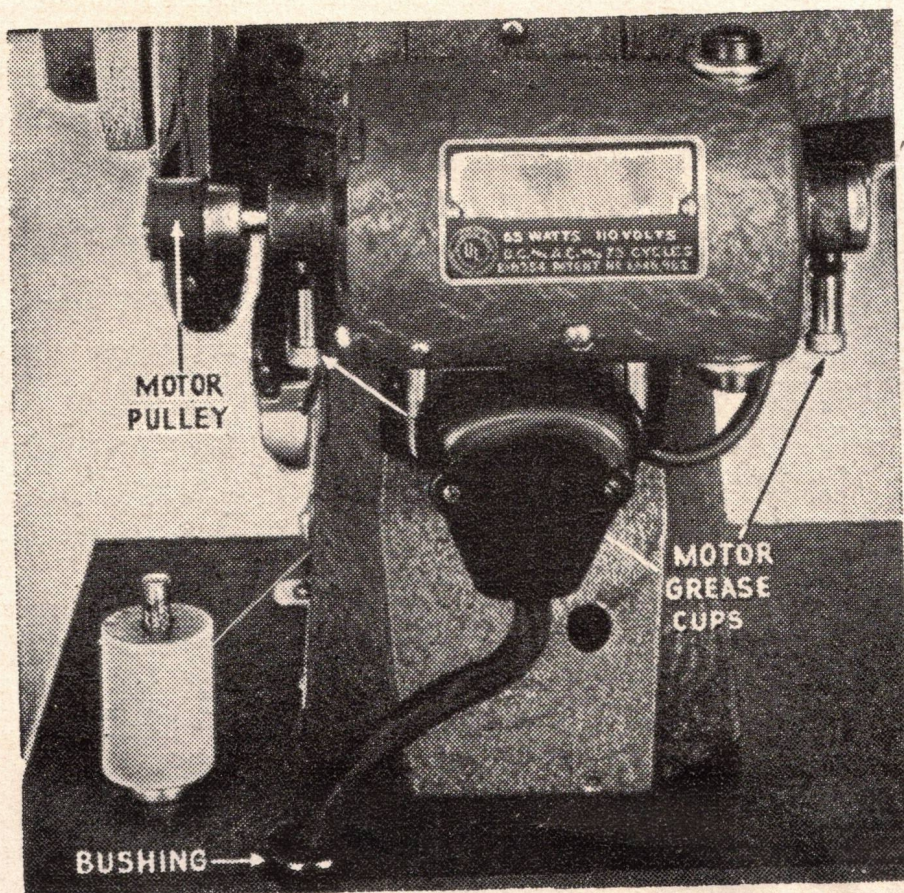


Figure 29

wind the extension cord inside the cabinet, plug into any base plug outlet, and the machine is ready for operation.

If machine is treadle operated, merely place leather belt around hand wheel drive pulley as of course there is no motor or electrical connections.

Motor Lubrication

Two cups (one at either end of the motor shaft) provide for motor lubrication. Unscrew the caps and fill with petroleum jelly occasionally, depending upon the use of the machine, approximately every six months.

Speed Control and Current

The desired sewing speed is obtained by pressing the knee lever. Removing pressure from the knee lever automatically stops the machine. The motor can be used on either AC or DC, 110 or 115 volts up to 75 cycles.

Motor Pulley

Be sure the motor pulley (Fig. 29) is adjusted so it centers on the disc wheel of the machine.

SIMPLE CORRECTIONS FOR MINOR DIFFICULTIES

This sewing machine was carefully adjusted and tested before being delivered, and with proper care and attention according to the directions in this book should give you no trouble. To be sure of getting the proper supplies for it, such as needles, oil and bobbins we recommend that you buy them from us, always giving the name of your machine and its serial number.

If your machine should actually need replacement parts or repair service we suggest that you get in touch with us. Do not permit just anybody who comes along to tamper with or attempt to fix your machine. Unskilled agents and untrained repair men often do far more harm than good in attempting to adjust a sewing machine.

For the most part sewing machine troubles can be remedied by minor adjustments easy to perform. Should your machine start misbehaving, check over the following list of minor difficulties and simple corrections for them, before calling for help.

If it Skips Stitches

The trouble may be caused by—

1. Crooked Needle:

May be hardly perceptible yet sufficient to cause skipping. Unthread the needle, remove presser foot, turn machine by hand. Needle should maintain a constant position in relation to the needle hole as the needle passes down through the needle plate hole.

Replace with a new needle and make certain this is not the cause of trouble.

2. Incorrect Needle—or too fine a needle:

It is very important that you have the correct needle. Be certain to follow the table in this instruction book in selecting the proper size needle for size of thread and material being used.

3. Needle incorrectly set:

The needle *must* be pushed up as far as it will go into the needle clamp with the flat side of the shank to the right and fastened securely with thumb screw.

4. Needle rubs Presser Foot:

Adjust presser foot holder on the presser bar so that needle is closer to, but *not* rubbing, the right side of the presser foot. To make this adjustment, loosen the small screw that fastens presser foot holder to presser bar. Adjust the foot to the proper position and *firmly* tighten screw. The needle should be a trifle closer to the right side of the foot.

If It Breaks Thread

The trouble may be caused by—

1. Wrong Needle being used:

It is important before trying anything else to put in a new *straight needle*, proper kind and size.

2. Needle too fine:

Select the proper needle and thread according to the table elsewhere in this instruction book.

3. Hole in the Needle Plate Choked with Stray Threads:

Pull threads from the *underside* of needle plate with screw driver or long needle, or better remove plate and clean.

4. Machine Improperly Threaded:

Check over carefully the instructions on threading the machine and observe especially the threading of the check spring on top of the face plate.

5. Top Tension too Tight:

Refer to instructions elsewhere in this book on the proper adjustment—both upper and lower tensions.

6. Needle too Close to Presser Foot:

Adjust foot as described “Needle Rubs on Presser Foot” under “Skips Stitches”.

7. Examine needle hole in needle plate. If it has become rough or burred from needle striking it, needle plate should be replaced with a new one.

If It Breaks Needles

The trouble may be caused by—

1. Pulling of the material when sewing will break needles. Guide the material only—*do not pull*.

2. Wrong Needle being used:
Be sure you are using correct needle for this machine.
3. Needle incorrectly set—too low:
See instructions elsewhere in this book on how to properly set needle and follow instructions carefully.
4. Needle Rubs on Presser Foot:
Adjust foot as described “Needle rubs on Presser Foot” under “Skips Stitches”.
5. Needle not firmly set:
After being certain needle is properly set be sure it is held tight by needle clamp screw—use a screw driver.

If Puckers On Ordinary Material

The trouble may be caused by—

1. Tensions must be in balance. See instructions elsewhere in this book on tension adjustment.
2. Reduce the tension on upper thread by moving indicator towards No. 1. Do some testing. If this fails, examine lower tension on bobbin case for proper adjustment and proceed to balance the tensions.
3. Blunt Needle—Replace with a new straight needle—examine needle point.

If Puckers On Fine Material

The trouble may be caused by—

1. Both tensions may be too tight:
Adjust upper and lower tensions—must be in balance. For chiffon and other very light materials, best results are obtained with upper tension set at $\frac{1}{2}$ and the lower tension in balance with that. However, sufficient tension must be maintained to raise the small auxiliary spring (No. 4 in Fig. 3) when machine is in operation.
2. Presser foot loose in holder:
Tighten knurled thumb screw.
3. Blunt Needle:
Replace with new straight needle—examine needle point.

4. Needle Plate:

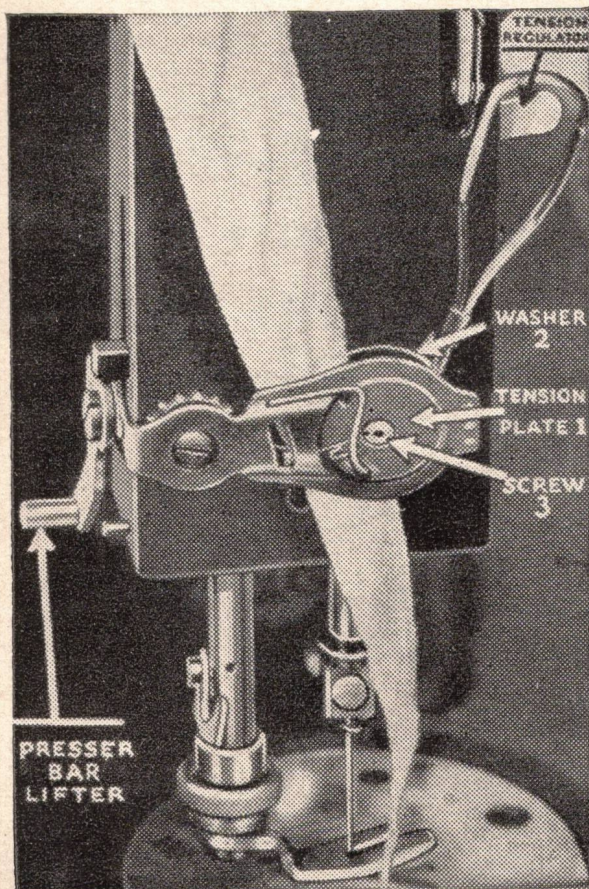
Bars in this plate might be slightly bent down. Needle plate hole might be rough from needle striking it. In either case a new needle plate is required.

Loose Stitching

The trouble may be caused by—

1. Tension too loose—either top, bottom or both:
See instructions elsewhere on tension adjustment and balance.
2. Upper Tension fails to Operate Satisfactorily:

Lint or stray threads lodged between tension plate No. 1. Raise the presser foot lifter (see illustration). Set the tension regulator at figure No. 1. next cut a piece of bias cloth to a point and draw this strip of cloth through and under tension plate No. 1 and close to screw No. 3 on the side from you as shown in illustration. This cloth should be drawn down through tension plate No. 1 and washer No. 2 (as shown in illustration), this can be accomplished by holding tension plate (No. 1) and washer (No. 2) apart with a small screw driver. Be careful to draw the cloth between plate No. 1 and washer No. 2. When you have this cloth in place, drop the presser bar lifter, move the tension regulator toward No. 8 and pull the cloth up and down a few



times which will remove any bits of thread or lint from between tension plate No. 1 and washer No. 2.

If Machine Runs Hard

The trouble may be caused by—

1. Needs Oiling:

See instructions elsewhere on this requirement. Use only best grade sewing machine oil. Do *not* use oil recommended as a rust preventative and furniture polish.

2. Threads in Shuttle Race:

Remove shuttle (see instructions elsewhere in this book on how to remove and replace shuttle) and clean race and drivers. Exercise extreme care to replace shuttle correctly. Sometimes satisfactory results can be had by running machine backwards *without* machine being threaded and *without* goods under the presser foot. If this fails, remove shuttle and clean as above directed.

If Zig Zag Stitching

The trouble may be caused by—

1. Tensions too loose:

See instructions elsewhere on tension adjustment.

2. Auxiliary spring not threaded properly:

See instructions elsewhere on proper threading.

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